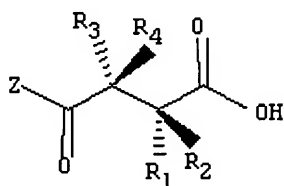


CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A compound of general formula $Z-OC(CR_{n1}R_{n2})_n-CO-Z$ ~~wherein~~ $Z-OC(CR_1R_2)_n-CO-Z$ wherein $Z = OH$ or NH_2 , and ~~$n1 = n2$~~ n is 1 to 8, wherein one R of the R_1 or R_2 moieties in the compound is selected from the group consisting of SO_3H , OSO_3H , CH_2-SO_3H , CH_2-OSO_3H , and $NHSO_3H$, and the remaining R s are H or NH_2 , and or a non-toxic salts salt thereof, with the proviso that if n is 2 and any of R_1 or R_2 is SO_3H or $NHSO_3H$, the remaining R_1 and R_2 cannot all be H .

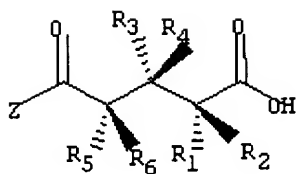
2. (Currently Amended) A compound ~~as claimed in claim 1~~ having a structure as shown below and bearing general formula $ZOC-CR_3R_4-CR_1R_2-COOH$ wherein: $Z=OH$ or NH_2 , R_1 to R_4 ~~denotes~~ are, independently, H , NH_2 , SO_3H , or OSO_3H , CH_2-SO_3H , CH_2-OSO_3H , $NHSO_3H$



Structure 1

, and or a non-toxic salts salt thereof, with the proviso that if Z is OH , none of R_1-R_4 can be SO_3H or $NHSO_3H$.

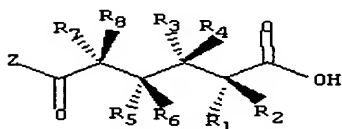
3. (Currently Amended) A compound as claimed in claim 1 having a structure as shown below and bearing general formula $ZOC-CR_5R_6-CR_3R_4-CR_1R_2-COOH$ wherein: $Z=OH$ or NH_2 , R_1 to R_6 ~~denotes~~ are, independently, H , NH_2 , SO_3H , or OSO_3H , CH_2-SO_3H , CH_2-OSO_3H , $NHSO_3H$



Structure 2

, and or a non-toxic salts salt thereof.

4. (Currently Amended) A compound as claimed in claim 1 having a structure as shown below and bearing general formula $ZOC-CR_7R_8-CR_5R_6-CR_3R_4-CR_1R_2-COOH$ wherein: $Z=OH$ or NH_2 , R_1 to R_8 denotes are, independently, H, NH_2 , SO_3H , or OSO_3H , CH_2-SO_3H , CH_2-OSO_3H , $NHSO_3H$



structure 3

, and or a non-toxic salts salt thereof.

5. (Currently Amended) A compound as claimed in claim 2, wherein the compound is selected from the group consisting of:

- I [~~L-Aspartic acid, N-Sulfonic acid~~],
- II [~~2 α ,3-dicarboxy, propane-1-sulfonic acid~~], 2 α ,3-dicarboxy, propane-1-sulfonic acid,
- III [~~2 α ,3-dicarboxy, propane-1-sulfate~~], 2 α ,3-dicarboxy, propane-1-sulfate,
- IV [~~1 α ,2-carboxy ethane sulfonic acid~~], 1 α ,2-carboxy ethane sulfonic acid,
- V [~~1 α ,2-carboxy ethane sulfate~~], 1 α ,2-carboxy ethane sulfate,
- VI [~~D-aspartic acid, N-sulfonic acid~~],
- VII [~~2 β ,3-carboxy,propane-1-sulfonic acid~~], 2 β ,3-carboxy,propane-1-sulfonic acid,
- VIII [~~2 β ,3-carboxy,propane-1-sulfate~~], 2 β ,3-carboxy,propane-1-sulfate,

- IX ~~{1 β ,2-carboxy ethane-1-sulfonic acid},~~ 1 β ,2-carboxy ethane-1-sulfonic acid,
- X ~~{1 β ,2-carboxy ethane-1-sulfate},~~ 1 β ,2-carboxy ethane-1-sulfate,
- XI ~~{D-aspartic acid, 3 α -sulfonic acid},~~
- XII ~~{D-aspartic acid, 3 α -sulfate},~~
- XIII ~~{D-aspartic acid, 3 β -sulfonic acid},~~
- XIV ~~{D-aspartic acid, 3 β -sulfate},~~
- XV ~~{L-asparagine, N-sulfonic acid},~~ L-asparagine, N-sulfonic acid,
- XVI ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid},~~ 2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XVII ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfate},~~ 2 α -carboxy, 3-carboxamido, propane-1-sulfate,
- XVIII ~~{1 α -carboxy, 2-carboxamido, ethane-sulfonic acid},~~ 1 α -carboxy, 2-carboxamido, ethane sulfonic acid,
- XIX ~~{1 α -carboxy, 2-carboxamido, ethane-sulfate},~~ 1 α -carboxy, 2-carboxamido, ethane sulfate,
- XX ~~{L-asparagine, 3 α -sulfonic acid},~~ L-asparagine, 3 α -sulfonic acid,
- XXI ~~{L-asparagine, 3 α -sulfate},~~ L-asparagine, 3 α -sulfate,
- XXII ~~{L-asparagine, 3 β -sulfonic acid},~~ L-asparagine, 3 β -sulfonic acid,
- XXIII ~~{L-asparagine, 3 β -sulfate},~~ L-asparagine, 3 β -sulfate,
- XXIV ~~{D-asparagine, N-sulfonic acid},~~ D-asparagine, N-sulfonic acid,
- XXV ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid},~~ 2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XXVI ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfate},~~ 2 β -carboxy, 3-carboxamido, propane-1-sulfate,
- XXVII ~~{1 β -carboxy, 2-carboxamido, ethane-sulfonic acid},~~ 1 β -carboxy, 2-carboxamido, ethane sulfonic acid,
- XXVIII ~~{1 β -carboxy, 2-carboxamido, ethane-sulfate},~~ 1 β -carboxy, 2-carboxamido, ethane sulfate,
- XXIX ~~{D-asparagine, 3 α -sulfonic acid},~~ D-asparagine, 3 α -sulfonic acid,

- XXX ~~[D-asparagine, 3 α -sulfate]~~, D-asparagine, 3 α -sulfate,
XXXI ~~[D-asparagine, 3 β -sulfonic acid]~~, D-asparagine, 3 β -sulfonic acid,
XXXII ~~[D-asparagine, 3 β -sulfate]~~, D-asparagine, 3 β -sulfate,
XXXIII ~~[L-glutamic acid, N-sulfonic acid]~~, L-glutamic acid, N-sulfonic acid,
XXXIV ~~[2 α ,4-dicarboxy, butane-1-sulfonic acid]~~, 2 α ,4-dicarboxy, butane-1-sulfonic acid,
XXXV ~~[2 α , 4-dicarboxy, butane-1-sulfate]~~, 2 α , 4-dicarboxy, butane-1-sulfate,
XXXVI ~~[1 α , 3-dicarboxy, propane-sulfonic acid]~~, 1 α , 3-dicarboxy, propane-sulfonic acid,
XXXVII ~~[1 α , 3-dicarboxy, propane-sulfate]~~, 1 α , 3-dicarboxy, propane-sulfate,
XXXVIII ~~[1 β , 3-dicarboxy, propane-sulfate]~~, and 1 β , 3-dicarboxy, propane-sulfate
and
XXXIX ~~[1 β , 3-dicarboxy, propane-sulfonic acid]~~, 1 β , 3-dicarboxy, propane-sulfonic acid, or a non-toxic salt thereof.

6. (Currently Amended) A compound as claimed in claim 3, wherein the compound is selected from the group consisting of:

- I. ~~[D-glutamic acid, N-sulfonic acid]~~, D-glutamic acid, N-sulfonic acid,
- II. ~~2 β , 4-dicarboxy, butane-1-sulfonic acid]~~, 2 β , 4-dicarboxy, butane-1-sulfonic acid,
- III. ~~[2 β , 4-dicarboxy, butane-1-sulfate]~~, 2 β , 4-dicarboxy, butane-1-sulfate,
- IV. ~~[D-glutamic acid, 3 α -sulfonic acid]~~, D-glutamic acid, 3 α -sulfonic acid,
- V. ~~[D-glutamic acid, 3 α -sulfate]~~, D-glutamic acid, 3 α -sulfate,
- VI. ~~[D-glutamic acid, 3 β -sulfonic acid]~~, D-glutamic acid, 3 β -sulfonic acid,
- VII. ~~[D-glutamic acid, 3 β -sulfate]~~, D-glutamic acid, 3 β -sulfate,
- VIII. ~~[D-glutamic acid, 4 α -sulfonic acid]~~, D-glutamic acid, 4 α -sulfonic acid,
- IX. ~~[D-glutamic acid, 4 α -sulfate]~~, D-glutamic acid, 4 α -sulfate,
- X. ~~[D-glutamic acid, 4 β -sulfonic acid]~~, D-glutamic acid, 4 β -sulfonic acid,
- XI. ~~[D-glutamic acid, 3 β -sulfate]~~, D-glutamic acid, 3 β -sulfate,
- XII. ~~[L-glutamine, N-sulfonic acid]~~, L-glutamine, N-sulfonic acid,

- XIII. [~~2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid~~], 2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XIV. [~~2 α -carboxy, 4-carboxamido, butane-1-sulfate~~], 2 α -carboxy, 4-carboxamido, butane-1-sulfate,
- XV. [~~1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid~~], 1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XVI. [~~1 α -carboxy, 3-carboxamido, propane-1-sulfate~~], 1 α -carboxy, 3-carboxamido, propane-1-sulfate,
- XVII. [~~1 β -carboxy, 3-carboxamido, propane-1-sulfate~~], 1 β -carboxy, 3-carboxamido, propane-1-sulfate,
- XVIII. [~~1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid~~], 1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XIX. [~~D-glutamine, N-sulfonic acid~~], D-glutamine, N-sulfonic acid,
- XX. [~~2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid~~], 2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XXI. [~~2 β -carboxy, 4-carboxamido, butane-1-sulfate~~], 2 β -carboxy, 4-carboxamido, butane-1-sulfate,
- XXII. [~~D-glutamine, 3 α -sulfonic acid~~], D-glutamine, 3 α -sulfonic acid,
- XXIII. [~~D-glutamine, 3 α -sulfate~~], D-glutamine, 3 α -sulfate,
- XXIV. [~~D-glutamine, 3 β -sulfonic acid~~], D-glutamine, 3 β -sulfonic acid,
- XXV. [~~D-glutamine, 3 β -sulfate~~], D-glutamine, 3 β -sulfate,
- XXVI. [~~D-glutamine, 4 α -sulfonic acid~~], D-glutamine, 4 α -sulfonic acid,
- XXVII. [~~D-glutamine, 4 α -sulfate~~], D-glutamine, 4 α -sulfate,
- XXVIII. [~~D-glutamine, 4 β -sulfonic acid~~], D-glutamine, 4 β -sulfonic acid,
- XXIX. [~~D-glutamine, 4 β -sulfate~~], D-glutamine, 4 β -sulfate,
- XXX. [~~L-homoglutamic acid, N-sulfonic acid~~], L-homoglutamic acid, N-sulfonic acid,
- XXXI. [~~Pentane-2 α , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 α , 5-dicarboxy-1-sulfonic acid,
- XXXII. [~~Pentane-2 α , 5-dicarboxy-1-sulfate~~], Pentane-2 α , 5-dicarboxy-1-sulfate,

- XXXIII. [~~Butane-1 α , 4-dicarboxy-1-sulfonic acid~~], Butane-1 α , 4-dicarboxy-1-sulfonic acid,
- XXXIV. [~~Butane-1 α , 4-dicarboxy-1-sulfate~~], Butane-1 α , 4-dicarboxy-1-sulfate,
- XXXV. [~~D-homoglutamic acid, N-sulfonic acid~~], D-homoglutamic acid, N-sulfonic acid,
- XXXVI. [~~D-homoglutamic acid, N-sulfonic acid~~], D-homoglutamic acid, N-sulfonic acid,
- XXXVII. [~~Pentane-2 β , 5-dicarboxy-1-sulfate~~], Pentane-2 β , 5-dicarboxy-1-sulfate,
- XXXVIII. [~~Butane-1 β , 4-dicarboxy-1-sulfonic acid~~], and Butane-1 β , 4-dicarboxy-1-sulfonic acid, and
- XXXIX. [~~Butane-1 β , 4-dicarboxy-1-sulfate~~], Butane-1 β , 4-dicarboxy-1-sulfate, or a non-toxic salt thereof.

7. (Currently Amended) A compound as claimed in claim 4, wherein the compound is selected from the group consisting of:

- I. [~~D-homoglutamic acid, 3 α -sulfonic acid~~], D-homoglutamic acid, 3 α -sulfonic acid,
- II. [~~D-homoglutamic acid, 3 α -sulfate~~], D-homoglutamic acid, 3 α -sulfate,
- III. [~~D-homoglutamic acid, 3 β -sulfonic acid~~], D-homoglutamic acid, 3 β -sulfonic acid,
- IV. [~~D-homoglutamic acid, 3 β -sulfate~~], D-homoglutamic acid, 3 β -sulfate,
- V. [~~D-homoglutamic acid, 4 α -sulfonic acid~~], D-homoglutamic acid, 4 α -sulfonic acid,
- VI. [~~D-homoglutamic acid, 4 α -sulfate~~], D-homoglutamic acid, 4 α -sulfate,
- VII. [~~D-homoglutamic acid, 4 β -sulfonic acid~~], D-homoglutamic acid, 4 β -sulfonic acid,
- VIII. [~~D-homoglutamic acid, 4 β -sulfate~~], D-homoglutamic acid, 4 β -sulfate,
- IX. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- X. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,

- XI. [~~D-homoglutamic acid, 5 β -sulfonic acid~~], D-homoglutamic acid, 5 β -sulfonic acid,
- XII. [~~D-homoglutamic acid, 5 β -sulfate~~], D-homoglutamic acid, 5 β -sulfate,
- XIII. [~~L-homoglutamine, N-sulfonic acid~~], L-homoglutamine, N-sulfonic acid,
- XIV. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid,
- XV. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfate~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfate,
- XVI. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid,
- XVII. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfate,
- XVIII. [~~D-homoglutamine, N-sulfonic acid~~], D-homoglutamine, N-sulfonic acid,
- XIX. [~~Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid,
- XX. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid,
- XXI. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfate,
- XXII. [~~D-homoglutamine, 3 α -sulfonic acid~~], D-homoglutamine, 3 α -sulfonic acid,
- XXIII. [~~D-homoglutamine, 3 α -sulfate~~], D-homoglutamine, 3 α -sulfate,
- XXIV. [~~D-homoglutamine, 3 β -sulfonic acid~~], D-homoglutamine, 3 β -sulfonic acid,
- XXV. [~~D-homoglutamine, 3 β -sulfate~~], D-homoglutamine, 3 β -sulfate,
- XXVI. [~~D-homoglutamine, 4 α -sulfonic acid~~], D-homoglutamine, 4 α -sulfonic acid,
- XXVII. [~~D-homoglutamine, 4 α -sulfate~~], D-homoglutamine, 4 α -sulfate,
- XXVIII. [~~D-homoglutamine, 4 β -sulfonic acid~~], D-homoglutamine, 4 β -sulfonic acid,
- XXIX. [~~D-homoglutamine, 4 β -sulfate~~], D-homoglutamine, 4 β -sulfate,
- XXX. [~~D-homoglutamine, 5 α -sulfonic acid~~], D-homoglutamine, 5 α -sulfonic acid,
- XXXI. [~~D-homoglutamine, 5 α -sulfate~~], D-homoglutamine, 5 α -sulfate,

XXXII. ~~{D-homoglutamine, 5 β -sulfonic acid}~~, and D-homoglutamine, 5 β -sulfonic acid and

XXXIII. ~~{D-homoglutamine, 5 β -sulfate}~~. D-homoglutamine, 5 β -sulfate, or a non-toxic salt thereof.

8. (Currently Amended) The compound of claim 2, wherein:

a) Z is OH, R₂-R₄ are H, and R₁ is selected from the group consisting of SO₃H, OSO₃H, CH₂--SO₃H, CH₂--OSO₃H, and NHSO₃H,

b) Z is OH, R₁ and R₃₋₄ are H, and R₂ is selected from the group consisting of SO₃H, OSO₃H, CH₂--SO₃H, CH₂--OSO₃H, and NHSO₃H,

c) Z is OH, R₁ and R₄ are H, R₂ is NH₂, and R₃ is selected from the group consisting of SO₃H, OSO₃H, CH₂--SO₃H, CH₂--OSO₃H, and NHSO₃H,

d) Z is NH₂, R₂-R₄ are H, and R₁ is selected from the group consisting of SO₃H, OSO₃H, CH₂--SO₃H, CH₂--OSO₃H, and NHSO₃H,

e) Z is NH₂, R₁ and R₄ are H, R₂ is NH₂, and R₃ is selected from the group consisting of SO₃H, OSO₃H, CH₂--SO₃H, CH₂--OSO₃H, and NHSO₃H,

f) Z is NH₂, R₁ and R₃ are H, R₂ is NH₂, and R₄ is selected from the group consisting of SO₃H, OSO₃H, CH₂--SO₃H, CH₂--OSO₃H, and NHSO₃H, or

g) Z is NH₂, R₁ and R₃₋₄ are H, and R₂ is selected from the group consisting of SO₃H, OSO₃H, CH₂--SO₃H, CH₂--OSO₃H, and NHSO₃H,

and or a non-toxic salts salt thereof.

9. (Previously Amended) Sulfonic acid / sulfate derivatives of the compound of claim 3.

10. (Previously Amended) Sulfonic acid / sulfate derivatives of the compound of claim 4.

11. (Currently Amended) A compound as claimed in claim 5, wherein said compound is ~~a non-toxic salt~~ selected from the group consisting of:

I. ~~{L-Aspartic acid, N-Sulfonic acid}~~,

II. ~~{2 α ,3-dicarboxy, propane-1-sulfonic acid}~~, 2 α ,3-dicarboxy, propane-1-sulfonic acid,

- III. ~~{2 α ,3-dicarboxy, propane-1-sulfate}~~; 2 α ,3-dicarboxy, propane-1-sulfate,
- IV. ~~{1 α ,2-carboxy ethane sulfonic acid}~~; 1 α ,2-carboxy ethane sulfonic acid,
- V. ~~{1 α ,2-carboxy ethane sulfate}~~; 1 α ,2-carboxy ethane sulfate,
- VI. ~~{D-aspartic acid, N-sulfonic acid}~~;
- VII. ~~{2 β ,3-carboxy,propane-1-sulfonic acid}~~; 2 β ,3-carboxy,propane-1-sulfonic acid,
- VIII. ~~{2 β ,3-carboxy,propane-1-sulfate}~~; 2 β ,3-carboxy,propane-1-sulfate,
- IX. ~~{1 β ,2-carboxy ethane-1-sulfonic acid}~~; 1 β ,2-carboxy ethane-1-sulfonic acid,
- X. ~~{1 β ,2-carboxy ethane-1-sulfate}~~; 1 β ,2-carboxy ethane-1-sulfate,
- XI. ~~{D-aspartic acid, 3 α -sulfonic acid}~~;
- XII. ~~{D-aspartic acid, 3 α -sulfate}~~;
- XIII. ~~{D-aspartic acid, 3 β -sulfonic acid}~~;
- XIV. ~~{D-aspartic acid, 3 β -sulfate}~~;
- XV. ~~{L-asparagine, N-sulfonic acid}~~; L-asparagine, N-sulfonic acid,
- XVI. ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~; 2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XVII. ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfate}~~; 2 α -carboxy, 3-carboxamido, propane-1-sulfate,
- XVIII. ~~{1 α -carboxy, 2-carboxamido, ethane sulfonic acid}~~; 1 α -carboxy, 2-carboxamido, ethane sulfonic acid,
- XIX. ~~{1 α -carboxy, 2-carboxamido, ethane sulfate}~~; 1 α -carboxy, 2-carboxamido, ethane sulfate,
- XX. ~~{L-asparagine, 3 α -sulfonic acid}~~; L-asparagine, 3 α -sulfonic acid,
- XXI. ~~{L-asparagine, 3 α -sulfate}~~; L-asparagine, 3 α -sulfate,
- XXII. ~~{L-asparagine, 3 β -sulfonic acid}~~; L-asparagine, 3 β -sulfonic acid,
- XXIII. ~~{L-asparagine, 3 β -sulfate}~~; L-asparagine, 3 β -sulfate,
- XXIV. ~~{D-asparagine, N-sulfonic acid}~~; D-asparagine, N-sulfonic acid,
- XXV. ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~; 2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,

- XXVI. ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfate}~~; 2 β -carboxy, 3-carboxamido, propane-1-sulfate,
- XXVII. ~~{1 β -carboxy, 2-carboxamido, ethane sulfonic acid}~~; 1 β -carboxy, 2-carboxamido, ethane sulfonic acid,
- XXVIII. ~~{1 β -carboxy, 2-carboxamido, ethane sulfate}~~; 1 β -carboxy, 2-carboxamido, ethane sulfate,
- XXIX. ~~{D-asparagine, 3 α -sulfonic acid}~~; D-asparagine, 3 α -sulfonic acid,
- XXX. ~~{D-asparagine, 3 α -sulfate}~~; D-asparagine, 3 α -sulfate,
- XXXI. ~~{D-asparagine, 3 β -sulfonic acid}~~; D-asparagine, 3 β -sulfonic acid,
- XXXII. ~~{D-asparagine, 3 β -sulfate}~~; D-asparagine, 3 β -sulfate,
- XXXIII. ~~{L-glutamic acid, N-sulfonic acid}~~; L-glutamic acid, N-sulfonic acid,
- XXXIV. ~~{2 α ,4-dicarboxy, butane-1-sulfonic acid}~~; 2 α ,4-dicarboxy, butane-1-sulfonic acid,
- XXXV. ~~{2 α , 4-dicarboxy, butane-1-sulfate}~~; 2 α , 4-dicarboxy, butane-1-sulfate,
- XXXVI. ~~{1 α , 3-dicarboxy, propane-sulfonic acid}~~; 1 α , 3-dicarboxy, propane sulfonic acid,
- XXXVII. ~~{1 α , 3-dicarboxy, propane sulfate}~~; 1 α , 3-dicarboxy, propane sulfate,
- XXXVIII. ~~{1 β , 3-dicarboxy, propane sulfate}~~; and 1 β , 3-dicarboxy, propane sulfate, and
- XXXIX. ~~{1 β , 3-dicarboxy, propane-sulfonic acid}~~; 1 β , 3-dicarboxy, propane sulfonic acid.

12. (Currently Amended) A compound as claimed in claim 6, wherein said compound is a non-toxic salt selected from the group consisting of:

- I. ~~{D-glutamic acid, N-sulfonic acid}~~; D-glutamic acid, N-sulfonic acid,
- II. ~~{2 β , 4-dicarboxy, butane-1-sulfonic acid}~~; 2 β , 4-dicarboxy, butane-1-sulfonic acid,
- III. ~~{2 β , 4-dicarboxy, butane-1-sulfate}~~; 2 β , 4-dicarboxy, butane-1-sulfate,
- IV. ~~{D-glutamic acid, 3 α -sulfonic acid}~~; D-glutamic acid, 3 α -sulfonic acid,
- V. ~~{D-glutamic acid, 3 α -sulfate}~~; D-glutamic acid, 3 α -sulfate,
- VI. ~~{D-glutamic acid, 3 β -sulfonic acid}~~; D-glutamic acid, 3 β -sulfonic acid,

- VII. ~~{D-glutamic acid, 3 β -sulfate}~~, D-glutamic acid, 3 β -sulfate,
- VIII. ~~{D-glutamic acid, 4 α -sulfonic acid}~~, D-glutamic acid, 4 α -sulfonic acid,
- IX. ~~{D-glutamic acid, 4 α -sulfate}~~, D-glutamic acid, 4 α -sulfate,
- X. ~~{D-glutamic acid, 4 β -sulfonic acid}~~, D-glutamic acid, 4 β -sulfonic acid,
- XI. ~~{D-glutamic acid, 3 β -sulfate}~~, D-glutamic acid, 3 β -sulfate,
- XII. ~~{L-glutamine, N-sulfonic acid}~~, L-glutamine, N-sulfonic acid,
- XIII. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid}~~, 2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XIV. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfate}~~, 2 α -carboxy, 4-carboxamido, butane-1-sulfate,
- XV. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~, 1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XVI. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfate}~~, 1 α -carboxy, 3-carboxamido, propane-1-sulfate,
- XVII. ~~{1 β -carboxy, 3-carboxamido, propane-1-sulfate}~~, 1 β -carboxy, 3-carboxamido, propane-1-sulfate,
- XVIII. ~~{1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~, 1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XIX. ~~{D-glutamine, N-sulfonic acid}~~, D-glutamine, N-sulfonic acid,
- XX. ~~{2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid}~~, 2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XXI. ~~{2 β -carboxy, 4-carboxamido, butane-1-sulfate}~~, 2 β -carboxy, 4-carboxamido, butane-1-sulfate,
- XXII. ~~{D-glutamine, 3 α -sulfonic acid}~~, D-glutamine, 3 α -sulfonic acid,
- XXIII. ~~{D-glutamine, 3 α -sulfate}~~, D-glutamine, 3 α -sulfate,
- XXIV. ~~{D-glutamine, 3 β -sulfonic acid}~~, D-glutamine, 3 β -sulfonic acid,
- XXV. ~~{D-glutamine, 3 β -sulfate}~~, D-glutamine, 3 β -sulfate,
- XXVI. ~~{D-glutamine, 4 α -sulfonic acid}~~, D-glutamine, 4 α -sulfonic acid,
- XXVII. ~~{D-glutamine, 4 α -sulfate}~~, D-glutamine, 4 α -sulfate,
- XXVIII. ~~{D-glutamine, 4 β -sulfonic acid}~~, D-glutamine, 4 β -sulfonic acid,

- XXIX. [~~D-glutamine, 4 β -sulfate~~], D-glutamine, 4 β -sulfate,
XXX. [~~L-homoglutamic acid, N-sulfonic acid~~], L-homoglutamic acid, N-sulfonic acid,
XXXI. [~~Pentane-2 α , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 α , 5-dicarboxy-1-sulfonic acid,
XXXII. [~~Pentane-2 α , 5-dicarboxy-1-sulfate~~], Pentane-2 α , 5-dicarboxy-1-sulfate,
XXXIII. [~~Butane-1 α , 4-dicarboxy-1-sulfonic acid~~], Butane-1 α , 4-dicarboxy-1-sulfonic acid,
XXXIV. [~~Butane-1 α , 4-dicarboxy-1-sulfate~~], Butane-1 α , 4-dicarboxy-1-sulfate,
XXXV. [~~D-homoglutamic acid, N-sulfonic acid~~], D-homoglutamic acid, N-sulfonic acid,
XXXVI. [~~Pentane-2 β , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 β , 5-dicarboxy-1-sulfonic acid,
XXXVII. [~~Pentane-2 β , 5-dicarboxy-1-sulfate~~], Pentane-2 β , 5-dicarboxy-1-sulfate,
XXXVIII. [~~Butane-1 β , 4-dicarboxy-1-sulfonic acid~~], and Butane-1 β , 4-dicarboxy-1-sulfonic acid,
XXXIX. [~~Butane-1 β , 4-dicarboxy-1-sulfate~~], Butane-1 β , 4-dicarboxy-1-sulfate.

13. (Currently Amended) A compound as claimed in claim 7, wherein said compound is a ~~non-toxic~~ salt selected from the group consisting of:

- I. [~~D-homoglutamic acid, 3 α -sulfonic acid~~], D-homoglutamic acid, 3 α -sulfonic acid,
II. [~~D-homoglutamic acid, 3 α -sulfate~~], D-homoglutamic acid, 3 α -sulfate,
III. [~~D-homoglutamic acid, 3 β -sulfonic acid~~], D-homoglutamic acid, 3 β -sulfonic acid,
IV. [~~D-homoglutamic acid, 3 β -sulfate~~], D-homoglutamic acid, 3 β -sulfate,
V. [~~D-homoglutamic acid, 4 α -sulfonic acid~~], D-homoglutamic acid, 4 α -sulfonic acid,
VI. [~~D-homoglutamic acid, 4 α -sulfate~~], D-homoglutamic acid, 4 α -sulfate.

- VII. [~~D-homoglutamic acid, 4 β -sulfonic acid~~], D-homoglutamic acid, 4 β -sulfonic acid,
- VIII. [~~D-homoglutamic acid, 4 β -sulfate~~], D-homoglutamic acid, 4 β -sulfate,
- IX. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- X. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- XI. [~~D-homoglutamic acid, 5 β -sulfonic acid~~], D-homoglutamic acid, 5 β -sulfonic acid,
- XII. [~~D-homoglutamic acid, 5 β -sulfate~~], D-homoglutamic acid, 5 β -sulfate,
- XIII. [~~L-homoglutamine, N-sulfonic acid~~], L-homoglutamine, N-sulfonic acid,
- XIV. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid,
- XV. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfate~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfate,
- XVI. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid],
- XVII. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfate],
- XVIII. [~~D-homoglutamine, N-sulfonic acid~~], D-homoglutamine, N-sulfonic acid],
- XIX. [~~Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid,
- XX. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid],
- XXI. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfate,
- XXII. [~~D-homoglutamine, 3 α -sulfonic acid~~], D-homoglutamine, 3 α -sulfonic acid,
- XXIII. [~~D-homoglutamine, 3 α -sulfate~~], D-homoglutamine, 3 α -sulfate,
- XXIV. [~~D-homoglutamine, 3 β -sulfonic acid~~], D-homoglutamine, 3 β -sulfonic acid,
- XXV. [~~D-homoglutamine, 3 β -sulfate~~], D-homoglutamine, 3 β -sulfate,
- XXVI. [~~D-homoglutamine, 4 α -sulfonic acid~~], D-homoglutamine, 4 α -sulfonic acid,
- XXVII. [~~D-homoglutamine, 4 α -sulfate~~], D-homoglutamine, 4 α -sulfate,

- XXVIII. [~~D-homoglutamine, 4 β -sulfonic acid~~], D-homoglutamine, 4 β -sulfonic acid],
XXIX. [~~D-homoglutamine, 4 β -sulfate~~], D-homoglutamine, 4 β -sulfate],
XXX. [~~D-homoglutamine, 5 α -sulfonic acid~~], D-homoglutamine, 5 α -sulfonic acid],
XXXI. [~~D-homoglutamine, 5 α -sulfate~~], D-homoglutamine, 5 α -sulfate],
XXXII. [~~D-homoglutamine, 5 β -sulfonic acid~~], and D-homoglutamine, 5 β -sulfonic acid,
XXXIII. [~~D-homoglutamine, 5 β -sulfate~~] D-homoglutamine, 5 β -sulfate.

14. (Currently Amended) A compound as claimed in claim 11, wherein said compound is selected from the group consisting of:

- I. [~~L-Aspartic acid, N-Sulfonic acid~~],
- II. [~~2 α ,3-dicarboxy, propane-1-sulfonic acid~~], 2 α ,3-dicarboxy, propane-1-sulfonic acid,
- III. [~~2 α ,3-dicarboxy, propane-1-sulfate~~], 2 α ,3-dicarboxy, propane-1-sulfate,
- IV. [~~1 α ,2-carboxy ethane-sulfonic acid~~], 1 α ,2-carboxy ethane sulfonic acid,
- V. [~~1 α ,2-carboxy ethane-sulfate~~], 1 α ,2-carboxy ethane sulfate,
- VI. [~~D-aspartic acid, N-sulfonic acid~~],
- VII. [~~2 β ,3-carboxy,propane-1-sulfonic acid~~], 2 β ,3-carboxy,propane-1-sulfonic acid,
- VIII. [~~2 β ,3-carboxy,propane-1-sulfate~~], 2 β ,3-carboxy,propane-1-sulfate,
- IX. [~~1 β ,2-carboxy ethane-1-sulfonic acid~~], 1 β ,2-carboxy ethane-1-sulfonic acid,
- X. [~~1 β ,2-carboxy ethane-1-sulfate~~], 1 β ,2-carboxy ethane-1-sulfate,
- XI. [~~D-aspartic acid, 3 α -sulfonic acid~~],
- XII. [~~D-aspartic acid, 3 α -sulfate~~],
- XIII. [~~D-aspartic acid, 3 β -sulfonic acid~~],
- XIV. [~~D-aspartic acid, 3 β -sulfate~~],
- XV. [~~L-asparagine, N-sulfonic acid~~], L-asparagine, N-sulfonic acid,
- XVI. [~~2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid~~], 2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,

- XVII. ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfate}~~, 2 α -carboxy, 3-carboxamido, propane-1-sulfate,
- XVIII. ~~{1 α -carboxy, 2-carboxamido, ethane sulfonic acid}~~, 1 α -carboxy, 2-carboxamido, ethane sulfonic acid,
- XIX. ~~{1 α -carboxy, 2-carboxamido, ethane sulfate}~~, 1 α -carboxy, 2-carboxamido, ethane sulfate,
- XX. ~~{L-asparagine, 3 α -sulfonic acid}~~, L-asparagine, 3 α -sulfonic acid,
- XXI. ~~{L-asparagine, 3 α -sulfate}~~, L-asparagine, 3 α -sulfate,
- XXII. ~~{L-asparagine, 3 β -sulfonic acid}~~, L-asparagine, 3 β -sulfonic acid,
- XXIII. ~~{L-asparagine, 3 β -sulfate}~~, L-asparagine, 3 β -sulfate,
- XXIV. ~~{D-asparagine, N-sulfonic acid}~~, D-asparagine, N-sulfonic acid,
- XXV. ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~, 2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XXVI. ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfate}~~, 2 β -carboxy, 3-carboxamido, propane-1-sulfate,
- XXVII. ~~{1 β -carboxy, 2-carboxamido, ethane sulfonic acid}~~, [1 β -carboxy, 2-carboxamido, ethane sulfonic acid,
- XXVIII. ~~{1 β -carboxy, 2-carboxamido, ethane sulfate}~~, 1 β -carboxy, 2-carboxamido, ethane sulfate,
- XXIX. ~~{D-asparagine, 3 α -sulfonic acid}~~, D-asparagine, 3 α -sulfonic acid,
- XXX. ~~{D-asparagine, 3 α -sulfate}~~, D-asparagine, 3 α -sulfate,
- XXXI. ~~{D-asparagine, 3 β -sulfonic acid}~~, and D-asparagine, 3 β -sulfonic acid, and
- XXXII. ~~{D-asparagine, 3 β -sulfate}~~, D-asparagine, 3 β -sulfate.

15. (Currently Amended) A compound as claimed in claim 12, wherein said compound is selected from the group consisting of:

- I. ~~{L-glutamic acid, N-sulfonic acid}~~, L-glutamic acid, N-sulfonic acid,
- II. ~~{2 α ,4-dicarboxy, butane-1-sulfonic acid}~~, 2 α ,4-dicarboxy, butane-1-sulfonic acid,
- III. ~~{2 α , 4-dicarboxy, butane-1-sulfate}~~, 2 α , 4-dicarboxy, butane-1-sulfate,

- IV. ~~{1 α , 3-dicarboxy, propane-sulfonic acid}~~, 1 α , 3-dicarboxy, propane sulfonic acid,
- V. ~~{1 α , 3-dicarboxy, propane-sulfate}~~, 1 α , 3-dicarboxy, propane sulfate,
- VI. ~~{1 β , 3-dicarboxy, propane-sulfate}~~, 1 β , 3-dicarboxy, propane sulfate,
- VII. ~~{1 β , 3-dicarboxy, propane-sulfonic acid}~~, 1 β , 3-dicarboxy, propane sulfonic acid,
- VIII. ~~{D-glutamic acid, N-sulfonic acid}~~, D-glutamic acid, N-sulfonic acid,
- IX. ~~{2 β , 4-dicarboxy, butane-1-sulfonic acid}~~, 2 β , 4-dicarboxy, butane-1-sulfonic acid,
- X. ~~{2 β , 4-dicarboxy, butane-1-sulfate}~~, 2 β , 4-dicarboxy, butane-1-sulfate,
- XI. ~~{D-glutamic acid, 3 α -sulfonic acid}~~, D-glutamic acid, 3 α -sulfonic acid,
- XII. ~~{D-glutamic acid, 3 α -sulfate}~~, D-glutamic acid, 3 α -sulfate,
- XIII. ~~{D-glutamic acid, 3 β -sulfonic acid}~~, D-glutamic acid, 3 β -sulfonic acid,
- XIV. ~~{D-glutamic acid, 3 β -sulfate}~~, D-glutamic acid, 3 β -sulfate,
- XV. ~~{D-glutamic acid, 4 α -sulfonic acid}~~, D-glutamic acid, 4 α -sulfonic acid,
- XVI. ~~{D-glutamic acid, 4 α -sulfate}~~, D-glutamic acid, 4 α -sulfate,
- XVII. ~~{D-glutamic acid, 4 β -sulfonic acid}~~, D-glutamic acid, 4 β -sulfonic acid,
- XVIII. ~~{D-glutamic acid, 3 β -sulfate}~~, D-glutamic acid, 3 β -sulfate,
- XIX. ~~{L-glutamine, N-sulfonic acid}~~, L-glutamine, N-sulfonic acid,
- XX. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid}~~, 2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XXI. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfate}~~, 2 α -carboxy, 4-carboxamido, butane-1-sulfate,
- XXII. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~, 1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XXIII. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfate}~~, 1 α -carboxy, 3-carboxamido, propane-1-sulfate,
- XXIV. ~~{1 β -carboxy, 3-carboxamido, propane-1-sulfate}~~, 1 β -carboxy, 3-carboxamido, propane-1-sulfate,

- XXV. [~~1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid~~], 1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XXVI. [~~D-glutamine, N-sulfonic acid~~], D-glutamine, N-sulfonic acid,
- XXVII. [~~2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid~~], [2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XXVIII. [~~2 β -carboxy, 4-carboxamido, butane-1-sulfate~~], 2 β -carboxy, 4-carboxamido, butane-1-sulfate,
- XXIX. [~~D-glutamine, 3 α -sulfonic acid~~], D-glutamine, 3 α -sulfonic acid,
- XXX. [~~D-glutamine, 3 α -sulfate~~], D-glutamine, 3 α -sulfate,
- XXXI. [~~D-glutamine, 3 β -sulfonic acid~~], D-glutamine, 3 β -sulfonic acid,
- XXXII. [~~D-glutamine, 3 β -sulfate~~], D-glutamine, 3 β -sulfate,
- XXXIII. [~~D-glutamine, 4 α -sulfonic acid~~], D-glutamine, 4 α -sulfonic acid,
- XXXIV. [~~D-glutamine, 4 α -sulfate~~], D-glutamine, 4 α -sulfate,
- XXXV. [~~D-glutamine, 4 β -sulfonic acid~~], D-glutamine, 4 β -sulfonic acid,
- XXXVI. [~~D-glutamine, 4 β -sulfate~~], D-glutamine, 4 β -sulfate,
- XXXVII. [~~L-homoglutamic acid, N-sulfonic acid~~], L-homoglutamic acid, N-sulfonic acid,
- XXXVIII. [~~Pentane-2 α , 5-dicarboxy-1-sulfonic acid~~], [Pentane-2 α , 5-dicarboxy-1-sulfonic acid,
- XXXIX. [~~Pentane-2 α , 5-dicarboxy-1-sulfate~~], Pentane-2 α , 5-dicarboxy-1-sulfate,
- XL. [~~Butane-1 α , 4-dicarboxy-1-sulfonic acid~~], and Butane-1 α , 4-dicarboxy-1-sulfonic acid, and
- XLI. [~~Butane-1 α , 4-dicarboxy-1-sulfate~~]. Butane-1 α , 4-dicarboxy-1-sulfate.
16. (Currently Amended) A compound as claimed in claim 13, wherein said compound is selected from the group consisting of:
- I. [~~D-homoglutamic acid, N-sulfonic acid~~], D-homoglutamic acid, N-sulfonic acid,
- II. [~~Pentane-2 β , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 β , 5-dicarboxy-1-sulfonic acid,

- III. [~~Pentane-2 β , 5-dicarboxy-1-sulfate~~], Pentane-2 β , 5-dicarboxy-1-sulfate,
- IV. [~~Butane-1 β , 4-dicarboxy-1-sulfonic acid~~], Butane-1 β , 4-dicarboxy-1-sulfonic acid,
- V. [~~Butane-1 β , 4-dicarboxy-1-sulfate~~], Butane-1 β , 4-dicarboxy-1-sulfate,
- VI. [~~D-homoglutamic acid, 3 α -sulfonic acid~~], D-homoglutamic acid, 3 α -sulfonic acid,
- VII. [~~D-homoglutamic acid, 3 α -sulfate~~], D-homoglutamic acid, 3 α -sulfate,
- VIII. [~~D-homoglutamic acid, 3 β -sulfonic acid~~], D-homoglutamic acid, 3 β -sulfonic acid,
- IX. [~~D-homoglutamic acid, 3 β -sulfate~~], D-homoglutamic acid, 3 β -sulfate,
- X. [~~D-homoglutamic acid, 4 α -sulfonic acid~~], D-homoglutamic acid, 4 α -sulfonic acid,
- XI. [~~D-homoglutamic acid, 4 α -sulfate~~], D-homoglutamic acid, 4 α -sulfate,
- XII. [~~D-homoglutamic acid, 4 β -sulfonic acid~~], D-homoglutamic acid, 4 β -sulfonic acid,
- XIII. [~~D-homoglutamic acid, 4 β -sulfate~~], D-homoglutamic acid, 4 β -sulfate,
- XIV. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- XV. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- XVI. [~~D-homoglutamic acid, 5 β -sulfonic acid~~], D-homoglutamic acid, 5 β -sulfonic acid,
- XVII. [~~D-homoglutamic acid, 5 β -sulfate~~], D-homoglutamic acid, 5 β -sulfate,
- XVIII. [~~L-homoglutamine, N-sulfonic acid~~], L-homoglutamine, N-sulfonic acid,
- XIX. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid,
- XX. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfate~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfate,
- XXI. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid,
- XXII. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfate,

- XXIII. [~~D-homoglutamine, N-sulfonic acid~~], D-homoglutamine, N-sulfonic acid,
XXIV. [~~Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid,
XXV. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid,
XXVI. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfate,
XXVII. [~~D-homoglutamine, 3 α -sulfonic acid~~], D-homoglutamine, 3 α -sulfonic acid,
XXVIII. [~~D-homoglutamine, 3 α -sulfate~~], D-homoglutamine, 3 α -sulfate,
XXIX. [~~D-homoglutamine, 3 β -sulfonic acid~~], D-homoglutamine, 3 β -sulfonic acid,
XXX. [~~D-homoglutamine, 3 β -sulfate~~], D-homoglutamine, 3 β -sulfate,
XXXI. [~~D-homoglutamine, 4 α -sulfonic acid~~], D-homoglutamine, 4 α -sulfonic acid,
XXXII. [~~D-homoglutamine, 4 α -sulfate~~], D-homoglutamine, 4 α -sulfate,
XXXIII. [~~D-homoglutamine, 4 β -sulfonic acid~~], D-homoglutamine, 4 β -sulfonic acid,
XXXIV. [~~D-homoglutamine, 4 β -sulfate~~], D-homoglutamine, 4 β -sulfate,
XXXV. [~~D-homoglutamine, 5 α -sulfonic acid~~], D-homoglutamine, 5 α -sulfonic acid,
XXXVI. [~~D-homoglutamine, 5 α -sulfate~~], D-homoglutamine, 5 α -sulfate,
XXXVII. [~~D-homoglutamine, 5 β -sulfonic acid~~], and D-homoglutamine, 5 β -sulfonic acid, and
XXXVIII. [~~D-homoglutamine, 5 β -sulfate~~], D-homoglutamine, 5 β -sulfate.

17. (Currently Amended) A compound as claimed in claim 1, wherein incubation of BM leukocyte precursors with different concentrations of the compound increases the cell surface densities of CD11c, CD80, CD54 and CD11c on the BM leukocyte precursors to various levels with maximum up regulation at 200 mM.

18. (Currently Amended) A compound as claimed in claim 1 wherein, when the compound is administered to BM leukocyte precursor cells at a concentration of 50 micrograms/mL at 48 h of incubation, it provides a 2 to 4-fold increase in cell surface markers CD80, CD54, H-2D, or CD11c relative to baseline ~~wherein the compound gives the~~

~~fold increase in the levels of molecules of stimulated cells with either 15 ng/ml of GM-CSF or 200 mM of the compound at 48 h of incubation.~~

19. (Previously Amended) A compound as claimed in claim 18, wherein the viability of the cultures is more than 99% at the end of the incubation period at this concentration of the compound.
20. (Previously Amended) A compound as claimed in claim 1, wherein the compound is capable of inducing differentiation of dendritic cells and modulation of immune response controlled by dendritic cells.
21. (Previously Amended) A vaccine formulation comprising a compound of Claim 1, wherein the compound is capable of providing more efficient and faster presentation of antigens to T-cells, thereby initiating primary protective Th1 immune response and helping in the clearance of the pathogen.

Claims 22-28 (Cancelled)

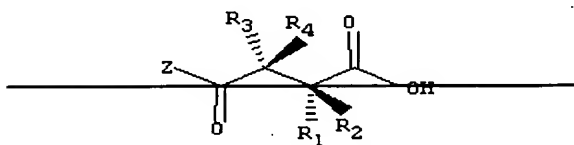
29. (Currently Amended) A pharmaceutical composition comprising an effective amount of a compound selected from the general formula $Z-OC(CR_{n1}R_{n2})_n-CO-Z$ $Z-OC(CR_1R_2)_n-CO-Z$ wherein $Z = OH$ or NH_2 and $n1 = n2 = n$ is 1 to 8, wherein one R of R_1 or R_2 in the compound is selected from the group consisting of SO_3H , OSO_3H , CH_2--SO_3H , CH_2--OSO_3H , and $NHSO_3H$, and the remaining R s are H or NH_2 , and salts or a salt thereof, along with an additive, excipient, diluents or carrier,

with the proviso that if n is 2 and any of R_1 or R_2 is SO_3H or $NHSO_3H$, the remaining R_1 and R_2 cannot all be H .

30. (Currently Amended) A composition as claimed in claim 29, wherein said compound is capable of being used in vaccine formulation to provide ~~more efficient and faster~~

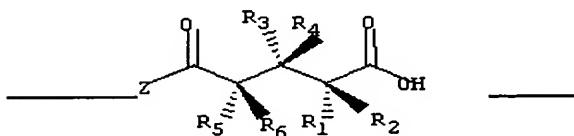
presentation of antigens to T-cells, thereby initiating primary protective Th1 immune response and helping in the clearance of the pathogen.

31. (Currently Amended) A composition as claimed in claim 29, wherein said compound is comprising a compound of Claim 2, along with an additive, excipient, diluents or carrier.



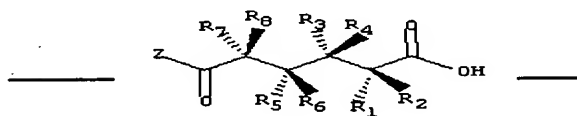
Structure 1

32. (Currently Amended) A composition as claimed in claim 29, wherein said compound is a compound of Claim 3.



Structure 2

33. (Currently Amended) A composition as claimed in claim 29, wherein said compound is a compound of Claim 4.



structure 3

34. (Previously Amended) A composition as claimed in claim 29, wherein said compound is non-toxic to monocytes.

35. (Previously Amended) A composition as claimed in claim 29, wherein said compound is non-toxic to macrophages.
36. (Currently Amended) A composition as claimed in claim 29, wherein the composition further comprises an additive comprising different divalent metal cations such as Mg, Ca and Zn.

Claim 37. (Cancelled)

38. (Currently Amended) A composition as claimed in claim 31, wherein the compound is selected from the group consisting of:
- I. [~~L-Aspartic acid, N-Sulfonic acid~~],
 - II. [~~2 α ,3-dicarboxy, propane-1-sulfonic acid~~], 2 α ,3-dicarboxy, propane-1-sulfonic acid,
 - III. [~~2 α ,3-dicarboxy, propane-1-sulfate~~], 2 α ,3-dicarboxy, propane-1-sulfate,
 - IV. [~~1 α ,2-carboxy ethane-sulfonic acid~~], 1 α ,2-carboxy ethane sulfonic acid,
 - V. [~~1 α ,2-carboxy ethane-sulfate~~], 1 α ,2-carboxy ethane sulfate,
 - VI. [~~D-aspartic acid, N-sulfonic acid~~],
 - VII. [~~2 β ,3-carboxy,propane-1-sulfonic acid~~], 2 β ,3-carboxy,propane-1-sulfonic acid,
 - VIII. [~~2 β ,3-carboxy,propane-1-sulfate~~], 2 β ,3-carboxy,propane-1-sulfate,
 - IX. [~~1 β ,2-carboxy ethane-1-sulfonic acid~~], 1 β ,2-carboxy ethane-1-sulfonic acid,
 - X. [~~1 β ,2-carboxy ethane-1-sulfate~~], 1 β ,2-carboxy ethane-1-sulfate,
 - XI. [~~D-aspartic acid, 3 α -sulfonic acid~~],
 - XII. [~~D-aspartic acid, 3 α -sulfate~~],
 - XIII. [~~D-aspartic acid, 3 β -sulfonic acid~~],
 - XIV. [~~D-aspartic acid, 3 β -sulfate~~],
 - XV. [~~L-asparagine, N-sulfonic acid~~], L-asparagine, N-sulfonic acid,
 - XVI. [~~2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid~~], 2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,

- XVII. [~~2 α -carboxy, 3-carboxamido, propane-1-sulfate~~], 2 α -carboxy, 3-carboxamido, propane-1-sulfate,
- XVIII. [~~1 α -carboxy, 2-carboxamido, ethane-sulfonic acid~~], 1 α -carboxy, 2-carboxamido, ethane-sulfonic acid,
- XIX. [~~1 α -carboxy, 2-carboxamido, ethane-sulfate~~], 1 α -carboxy, 2-carboxamido, ethane-sulfate,
- XX. [~~L-asparagine, 3 α -sulfonic acid~~], L-asparagine, 3 α -sulfonic acid,
- XXI. [~~L-asparagine, 3 α -sulfate~~], L-asparagine, 3 α -sulfate,
- XXII. [~~L-asparagine, 3 β -sulfonic acid~~], L-asparagine, 3 β -sulfonic acid,
- XXIII. [~~L-asparagine, 3 β -sulfate~~], L-asparagine, 3 β -sulfate,
- XXIV. [~~D-asparagine, N-sulfonic acid~~], D-asparagine, N-sulfonic acid,
- XXV. [~~2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid~~], 2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XXVI. [~~2 β -carboxy, 3-carboxamido, propane-1-sulfate~~], 2 β -carboxy, 3-carboxamido, propane-1-sulfate,
- XXVII. [~~1 β -carboxy, 2-carboxamido, ethane-sulfonic acid~~], 1 β -carboxy, 2-carboxamido, ethane-sulfonic acid,
- XXVIII. [~~1 β -carboxy, 2-carboxamido, ethane-sulfate~~], 1 β -carboxy, 2-carboxamido, ethane-sulfate,
- XXIX. [~~D-asparagine, 3 α -sulfonic acid~~], D-asparagine, 3 α -sulfonic acid,
- XXX. [~~D-asparagine, 3 α -sulfate~~], D-asparagine, 3 α -sulfate,
- XXXI. [~~D-asparagine, 3 β -sulfonic acid~~], D-asparagine, 3 β -sulfonic acid,
- XXXII. [~~D-asparagine, 3 β -sulfate~~], D-asparagine, 3 β -sulfate,
- XXXIII. [~~L-glutamic acid, N-sulfonic acid~~], L-glutamic acid, N-sulfonic acid,
- XXXIV. [~~2 α ,4-dicarboxy, butane-1-sulfonic acid~~], 2 α ,4-dicarboxy, butane-1-sulfonic acid,
- XXXV. [~~2 α ,4-dicarboxy, butane-1-sulfate~~], 2 α ,4-dicarboxy, butane-1-sulfate,
- XXXVI. [~~1 α ,3-dicarboxy, propane-sulfonic acid~~], 1 α ,3-dicarboxy, propane-sulfonic acid,
- XXXVII. [~~1 α ,3-dicarboxy, propane-sulfate~~], 1 α ,3-dicarboxy, propane-sulfate,

XXXVIII. ~~{1 β , 3-dicarboxy, propane sulfate}, and 1 β , 3-dicarboxy, propane sulfate,~~
and

XXXIX. ~~{1 β , 3-dicarboxy, propane sulfonic acid}, 1 β , 3-dicarboxy, propane sulfonic~~
acid.

39. (Currently Amended) A composition as claimed in claim 32, wherein the compound is selected from the group consisting of:

- I. ~~{D-glutamic acid, N-sulfonic acid}, D-glutamic acid, N-sulfonic acid,~~
- II. ~~2 β , 4-dicarboxy, butane-1-sulfonic acid}, 2 β , 4-dicarboxy, butane-1-sulfonic~~
acid,
- III. ~~{2 β , 4-dicarboxy, butane-1-sulfate}, 2 β , 4-dicarboxy, butane-1-sulfate,~~
- IV. ~~{D-glutamic acid, 3 α -sulfonic acid}, D-glutamic acid, 3 α -sulfonic acid,~~
- V. ~~{D-glutamic acid, 3 α -sulfate}, D-glutamic acid, 3 α -sulfate,~~
- VI. ~~{D-glutamic acid, 3 β -sulfonic acid}, D-glutamic acid, 3 β -sulfonic acid,~~
- VII. ~~{D-glutamic acid, 3 β -sulfate}, D-glutamic acid, 3 β -sulfate,~~
- VIII. ~~{D-glutamic acid, 4 α -sulfonic acid}, D-glutamic acid, 4 α -sulfonic acid,~~
- IX. ~~{D-glutamic acid, 4 α -sulfate}, D-glutamic acid, 4 α -sulfate,~~
- X. ~~{D-glutamic acid, 4 β -sulfonic acid}, D-glutamic acid, 4 β -sulfonic acid,~~
- XI. ~~{D-glutamic acid, 3 β -sulfate}, D-glutamic acid, 3 β -sulfate,~~
- XII. ~~{L-glutamine, N-sulfonic acid}, L-glutamine, N-sulfonic acid,~~
- XIII. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid}, 2 α -carboxy, 4-~~
carboxamido, butane-1-sulfonic acid,
- XIV. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfate}, 2 α -carboxy, 4-carboxamido,~~
butane-1-sulfate,
- XV. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid}, 1 α -carboxy, 3-~~
carboxamido, propane-1-sulfonic acid,
- XVI. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfate}, 1 α -carboxy, 3-carboxamido,~~
propane-1-sulfate,
- XVII. ~~{1 β -carboxy, 3-carboxamido, propane-1-sulfate}, 1 β -carboxy, 3-carboxamido,~~
propane-1-sulfate,

- XVIII. [~~1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid~~], 1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XIX. [~~D-glutamine, N-sulfonic acid~~], D-glutamine, N-sulfonic acid,
- XX. [~~2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid~~], 2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XXI. [~~2 β -carboxy, 4-carboxamido, butane-1-sulfate~~], 2 β -carboxy, 4-carboxamido, butane-1-sulfate,
- XXII. [~~D-glutamine, 3 α -sulfonic acid~~], D-glutamine, 3 α -sulfonic acid,
- XXIII. [~~D-glutamine, 3 α -sulfate~~], D-glutamine, 3 α -sulfate,
- XXIV. [~~D-glutamine, 3 β -sulfonic acid~~], D-glutamine, 3 β -sulfonic acid,
- XXV. [~~D-glutamine, 3 β -sulfate~~], D-glutamine, 3 β -sulfate,
- XXVI. [~~D-glutamine, 4 α -sulfonic acid~~], D-glutamine, 4 α -sulfonic acid,
- XXVII. [~~D-glutamine, 4 α -sulfate~~], D-glutamine, 4 α -sulfate,
- XXVIII. [~~D-glutamine, 4 β -sulfonic acid~~], D-glutamine, 4 β -sulfonic acid,
- XXIX. [~~D-glutamine, 4 β -sulfate~~], D-glutamine, 4 β -sulfate,
- XXX. [~~L-homoglutamic acid, N-sulfonic acid~~], L-homoglutamic acid, N-sulfonic acid,
- XXXI. [~~Pentane-2 α , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 α , 5-dicarboxy-1-sulfonic acid,
- XXXII. [~~Pentane-2 α , 5-dicarboxy-1-sulfate~~], Pentane-2 α , 5-dicarboxy-1-sulfate,
- XXXIII. [~~Butane-1 α , 4-dicarboxy-1-sulfonic acid~~], Butane-1 α , 4-dicarboxy-1-sulfonic acid,
- XXXIV. [~~Butane-1 α , 4-dicarboxy-1-sulfate~~], Butane-1 α , 4-dicarboxy-1-sulfate,
- XXXV. [~~D-homoglutamic acid, N-sulfonic acid~~], D-homoglutamic acid, N-sulfonic acid,
- XXXVI. [~~Pentane-2 β , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 β , 5-dicarboxy-1-sulfonic acid,
- XXXVII. [~~Pentane-2 β , 5-dicarboxy-1-sulfate~~], Pentane-2 β , 5-dicarboxy-1-sulfate,
- XXXVIII. [~~Butane-1 β , 4-dicarboxy-1-sulfonic acid~~], and Butane-1 β , 4-dicarboxy-1-sulfonic acid, and

XXXIX. [~~Butane-1 β , 4-dicarboxy-1-sulfate~~], Butane-1 β , 4-dicarboxy-1-sulfate.

40. (Currently Amended) A composition as claimed in claim 33, wherein the compound is selected from the group consisting of:

- I. [~~D-homoglutamic acid, 3 α -sulfonic acid~~], D-homoglutamic acid, 3 α -sulfonic acid,
- II. [~~D-homoglutamic acid, 3 α -sulfate~~], D-homoglutamic acid, 3 α -sulfate,
- III. [~~D-homoglutamic acid, 3 β -sulfonic acid~~], D-homoglutamic acid, 3 β -sulfonic acid,
- IV. [~~D-homoglutamic acid, 3 β -sulfate~~], D-homoglutamic acid, 3 β -sulfate,
- V. [~~D-homoglutamic acid, 4 α -sulfonic acid~~], D-homoglutamic acid, 4 α -sulfonic acid,
- VI. [~~D-homoglutamic acid, 4 α -sulfate~~], D-homoglutamic acid, 4 α -sulfate,
- VII. [~~D-homoglutamic acid, 4 β -sulfonic acid~~], D-homoglutamic acid, 4 β -sulfonic acid,
- VIII. [~~D-homoglutamic acid, 4 β -sulfate~~], D-homoglutamic acid, 4 β -sulfate,
- IX. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- X. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- XI. [~~D-homoglutamic acid, 5 β -sulfonic acid~~], D-homoglutamic acid, 5 β -sulfonic acid,
- XII. [~~D-homoglutamic acid, 5 β -sulfate~~], D-homoglutamic acid, 5 β -sulfate,
- XIII. [~~L-homoglutamine, N-sulfonic acid~~], L-homoglutamine, N-sulfonic acid,
- XIV. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid,
- XV. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfate~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfate,
- XVI. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid,
- XVII. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfate,

- XVIII. ~~{D-homoglutamine, N-sulfonic acid}~~, D-homoglutamine, N-sulfonic acid,
- XIX. ~~{Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid}~~, Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid,
- XX. ~~{Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid}~~, Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid,
- XXI. ~~{Butane-1 β -carboxy, 4-carboxamido-1-sulfate}~~, Butane-1 β -carboxy, 4-carboxamido-1-sulfate,
- XXII. ~~{D-homoglutamine, 3 α -sulfonic acid}~~, D-homoglutamine, 3 α -sulfonic acid,
- XXIII. ~~{D-homoglutamine, 3 α -sulfate}~~, D-homoglutamine, 3 α -sulfate,
- XXIV. ~~{D-homoglutamine, 3 β -sulfonic acid}~~, D-homoglutamine, 3 β -sulfonic acid,
- XXV. ~~{D-homoglutamine, 3 β -sulfate}~~, D-homoglutamine, 3 β -sulfate,
- XXVI. ~~{D-homoglutamine, 4 α -sulfonic acid}~~, D-homoglutamine, 4 α -sulfonic acid,
- XXVII. ~~{D-homoglutamine, 4 α -sulfate}~~, D-homoglutamine, 4 α -sulfate,
- XXVIII. ~~{D-homoglutamine, 4 β -sulfonic acid}~~, D-homoglutamine, 4 β -sulfonic acid,
- XXIX. ~~{D-homoglutamine, 4 β -sulfate}~~, D-homoglutamine, 4 β -sulfate,
- XXX. ~~{D-homoglutamine, 5 α -sulfonic acid}~~, D-homoglutamine, 5 α -sulfonic acid,
- XXXI. ~~{D-homoglutamine, 5 α -sulfate}~~, D-homoglutamine, 5 α -sulfate,
- XXXII. ~~{D-homoglutamine, 5 β -sulfonic acid}~~, and D-homoglutamine, 5 β -sulfonic acid, and
- XXXIII. ~~{D-homoglutamine, 5 β -sulfate}~~, D-homoglutamine, 5 β -sulfate.

Claim 41.(Cancelled).

42. (Previously Amended) A composition as claimed in claim 32, wherein the compound is a sulfonic acid / sulfate derivative of the compound of Claim 3.
43. (Previously Amended) A composition as claimed in claim 33, wherein the compound is a sulfonic acid / sulfate derivative of the compound of Claim 4.

44. (Currently Amended) A composition as claimed in claim 38, wherein said compound is selected from the group consisting of:
- I. ~~{D-homoglutamine, 5 β -sulfate}~~; D-homoglutamine, 5 β -sulfate,
 - II. ~~{2 α ,3-dicarboxy, propane-1-sulfonic acid}~~; 2 α ,3-dicarboxy, propane-1-sulfonic acid,
 - III. ~~{2 α ,3-dicarboxy, propane-1-sulfate}~~; 2 α ,3-dicarboxy, propane-1-sulfate,
 - IV. ~~{1 α ,2-carboxy ethane-sulfonic acid}~~; 1 α ,2-carboxy ethane sulfonic acid,
 - V. ~~{1 α ,2-carboxy ethane-sulfate}~~; 1 α ,2-carboxy ethane sulfate,
 - VI. ~~{D-aspartic acid, N-sulfonic acid}~~;
 - VII. ~~{2 β ,3-carboxy,propane-1-sulfonic acid}~~; 2 β ,3-carboxy,propane-1-sulfonic acid,
 - VIII. ~~{2 β ,3-carboxy,propane-1-sulfate}~~; 2 β ,3-carboxy,propane-1-sulfate,
 - IX. ~~{1 β ,2-carboxy ethane-1-sulfonic acid}~~; 1 β ,2-carboxy ethane-1-sulfonic acid,
 - X. ~~{1 β ,2-carboxy ethane-1-sulfate}~~; 1 β ,2-carboxy ethane-1-sulfate,
 - XI. ~~{1 β ,2-carboxy ethane-1-sulfate}~~; 1 β ,2-carboxy ethane-1-sulfate,
 - XII. ~~{D-aspartic acid, 3 α -sulfate}~~;
 - XIII. ~~{D-aspartic acid, 3 β -sulfonic acid}~~;
 - XIV. ~~{D-aspartic acid, 3 β -sulfate}~~;
 - XV. ~~{L-asparagine,N-sulfonic acid}~~; L-asparagine,N-sulfonic acid,
 - XVI. ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~; 2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,
 - XVII. ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfate}~~; 2 α -carboxy, 3-carboxamido, propane-1-sulfate,
 - XVIII. ~~{1 α -carboxy, 2-carboxamido, ethane-sulfonic acid}~~; 1 α -carboxy, 2-carboxamido, ethane sulfonic acid,
 - XIX. ~~{1 α -carboxy, 2-carboxamido, ethane-sulfate}~~; 1 α -carboxy, 2-carboxamido, ethane sulfate,
 - XX. ~~{L-asparagine, 3 α -sulfonic acid}~~; L-asparagine, 3 α -sulfonic acid,
 - XXI. ~~{L-asparagine, 3 α -sulfate}~~; L-asparagine, 3 α -sulfate,
 - XXII. ~~{L-asparagine, 3 β -sulfonic acid}~~; L-asparagine, 3 β -sulfonic acid,

- XXIII. ~~{L-asparagine, 3 β -sulfate, L-asparagine, 3 β -sulfate,~~
XXIV. ~~{D-asparagine, N-sulfonic acid}, D-asparagine, N-sulfonic acid,~~
XXV. ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid}, 2 β -carboxy, 3-~~
~~carboxamido, propane-1-sulfonic acid,~~
XXVI. ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfate}, 2 β -carboxy, 3-carboxamido,~~
~~propane-1-sulfate,~~
XXVII. ~~{1 β -carboxy, 2-carboxamido, ethane-sulfonic acid}, 1 β -carboxy, 2-~~
~~carboxamido, ethane sulfonic acid,~~
XXVIII. ~~{1 β -carboxy, 2-carboxamido, ethane-sulfate}, 1 β -carboxy, 2-carboxamido,~~
~~ethane sulfate,~~
XXIX. ~~{D-asparagine, 3 α -sulfonic acid}, D-asparagine, 3 α -sulfonic acid,~~
XXX. ~~{D-asparagine, 3 α -sulfate}, D-asparagine, 3 α -sulfate,~~
XXXI. ~~{D-asparagine, 3 β -sulfonic acid}, D-asparagine, 3 β -sulfonic acid,~~
XXXII. ~~{D-asparagine, 3 β -sulfate}, D-asparagine, 3 β -sulfate,~~
XXXIII. ~~{L-glutamic acid, N-sulfonic acid}, [L-glutamic acid, N-sulfonic acid,~~
XXXIV. ~~{2 α ,4-dicarboxy, butane-1-sulfonic acid}, 2 α ,4-dicarboxy, butane-1-sulfonic~~
~~acid,~~
XXXV. ~~{2 α , 4-dicarboxy, butane-1-sulfate}, 2 α , 4-dicarboxy, butane-1-sulfate,~~
XXXVI. ~~{1 α , 3-dicarboxy, propane-sulfonic acid}, 1 α , 3-dicarboxy, propane sulfonic~~
~~acid,~~
XXXVII. ~~{1 α , 3-dicarboxy, propane-sulfate}, 1 α , 3-dicarboxy, propane sulfate,~~
XXXVIII. ~~{1 β , 3-dicarboxy, propane-sulfate}, and 1 β , 3-dicarboxy, propane sulfate, and~~
XXXIX. ~~{1 β , 3-dicarboxy, propane-sulfonic acid}, 1 β , 3-dicarboxy, propane sulfonic~~
~~acid.~~

45. (Currently Amended) A composition as claimed in claim 39, wherein said compound is selected from the group consisting of:

- I. ~~{D-glutamic acid, N-sulfonic acid}, D-glutamic acid, N-sulfonic acid,~~
II. ~~{2 β , 4-dicarboxy, butane-1-sulfonic acid}, 2 β , 4-dicarboxy, butane-1-sulfonic~~
~~acid,~~

- III. ~~{2 β , 4-dicarboxy, butane-1-sulfate},~~ 2 β , 4-dicarboxy, butane-1-sulfate,
- IV. ~~{D-glutamic acid, 3 α -sulfonic acid},~~ D-glutamic acid, 3 α -sulfonic acid,
- V. ~~{D-glutamic acid, 3 α -sulfate},~~ D-glutamic acid, 3 α -sulfate,
- VI. ~~{D-glutamic acid, 3 β -sulfonic acid},~~ D-glutamic acid, 3 β -sulfonic acid,
- VII. ~~{D-glutamic acid, 3 β -sulfate},~~ D-glutamic acid, 3 β -sulfate,
- VIII. ~~{D-glutamic acid, 4 α -sulfonic acid},~~ D-glutamic acid, 4 α -sulfonic acid,
- IX. ~~{D-glutamic acid, 4 α -sulfate},~~ D-glutamic acid, 4 α -sulfate,
- X. ~~{D-glutamic acid, 4 β -sulfonic acid},~~ D-glutamic acid, 4 β -sulfonic acid,
- XI. ~~{D-glutamic acid, 3 β -sulfate},~~ D-glutamic acid, 3 β -sulfate,
- XII. ~~{L-glutamine, N-sulfonic acid},~~ L-glutamine, N-sulfonic acid,
- XIII. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid},~~ 2 α -carboxy, 4-
carboxamido, butane-1-sulfonic acid,
- XIV. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfate},~~ 2 α -carboxy, 4-carboxamido,
butane-1-sulfate,
- XV. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid},~~ 1 α -carboxy, 3-
carboxamido, propane-1-sulfonic acid,
- XVI. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfate},~~ 1 α -carboxy, 3-carboxamido,
propane-1-sulfate,
- XVII. ~~{1 β -carboxy, 3-carboxamido, propane-1-sulfate},~~ 1 β -carboxy, 3-carboxamido,
propane-1-sulfate,
- XVIII. ~~{1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid},~~ 1 β -carboxy, 3-
carboxamido, propane-1-sulfonic acid,
- XIX. ~~{D-glutamine, N-sulfonic acid},~~ D-glutamine, N-sulfonic acid,
- XX. ~~{2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid},~~ 2 β -carboxy, 4-
carboxamido, butane-1-sulfonic acid,
- XXI. ~~{2 β -carboxy, 4-carboxamido, butane-1-sulfate},~~ 2 β -carboxy, 4-carboxamido,
butane-1-sulfate,
- XXII. ~~{D-glutamine, 3 α -sulfonic acid},~~ D-glutamine, 3 α -sulfonic acid,
- XXIII. ~~{D-glutamine, 3 α -sulfonic acid},~~ D-glutamine, 3 α -sulfonic acid,
- XXIV. ~~{D-glutamine, 3 β -sulfonic acid},~~ D-glutamine, 3 β -sulfonic acid,

- XXV. [~~D-glutamine, 3 β -sulfate~~], D-glutamine, 3 β -sulfate,
XXVI. [~~D-glutamine, 4 α -sulfonic acid~~], D-glutamine, 4 α -sulfonic acid,
XXVII. [~~D-glutamine, 4 α -sulfate~~], D-glutamine, 4 α -sulfate,
XXVIII. [~~D-glutamine, 4 β -sulfonic acid~~], D-glutamine, 4 β -sulfonic acid,
XXIX. [~~D-glutamine, 4 β -sulfate~~], D-glutamine, 4 β -sulfate,
XXX. [~~L-homoglutamic acid, N-sulfonic acid~~], L-homoglutamic acid, N-sulfonic acid,
XXXI. [~~Pentane-2 α , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 α , 5-dicarboxy-1-sulfonic acid,
XXXII. [~~Pentane-2 α , 5-dicarboxy-1-sulfate~~], Pentane-2 α , 5-dicarboxy-1-sulfate,
XXXIII. [~~Butane-1 α , 4-dicarboxy-1-sulfonic acid~~], Butane-1 α , 4-dicarboxy-1-sulfonic acid,
XXXIV. [~~Butane-1 α , 4-dicarboxy-1-sulfate~~], Butane-1 α , 4-dicarboxy-1-sulfate,
XXXV. [~~D-homoglutamic acid, N-sulfonic acid~~], D-homoglutamic acid, N-sulfonic acid,
XXXVI. [~~Pentane-2 β , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 β , 5-dicarboxy-1-sulfonic acid,
XXXVII. [~~Pentane-2 β , 5-dicarboxy-1-sulfate~~], Pentane-2 β , 5-dicarboxy-1-sulfate,
XXXVIII. [~~Butane-1 β , 4-dicarboxy-1-sulfonic acid~~], and Butane-1 β , 4-dicarboxy-1-sulfonic acid, and
XXXIX. [~~Butane-1 β , 4-dicarboxy-1-sulfate~~], Butane-1 β , 4-dicarboxy-1-sulfate.

46. (Currently Amended) A composition as claimed in claim 40, wherein said compound is selected from the group consisting of:

- I. [~~D-homoglutamic acid, 3 α -sulfonic acid~~], D-homoglutamic acid, 3 α -sulfonic acid,
II. [~~D-homoglutamic acid, 3 α -sulfate~~], D-homoglutamic acid, 3 α -sulfate,
III. [~~D-homoglutamic acid, 3 β -sulfonic acid~~], D-homoglutamic acid, 3 β -sulfonic acid,
IV. [~~D-homoglutamic acid, 3 β -sulfate~~], D-homoglutamic acid, 3 β -sulfate,

- V. [~~D-homoglutamic acid, 4 α -sulfonic acid~~], D-homoglutamic acid, 4 α -sulfonic acid,
- VI. [~~D-homoglutamic acid, 4 α -sulfate~~], D-homoglutamic acid, 4 α -sulfate,
- VII. [~~D-homoglutamic acid, 4 β -sulfonic acid~~], D-homoglutamic acid, 4 β -sulfonic acid,
- VIII. [~~D-homoglutamic acid, 4 β -sulfate~~], D-homoglutamic acid, 4 β -sulfate,
- IX. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- X. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- XI. [~~D-homoglutamic acid, 5 β -sulfonic acid~~], D-homoglutamic acid, 5 β -sulfonic acid,
- XII. [~~D-homoglutamic acid, 5 β -sulfate~~], D-homoglutamic acid, 5 β -sulfate,
- XIII. [~~L-homoglutamine, N-sulfonic acid~~], L-homoglutamine, N-sulfonic acid,
- XIV. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid,
- XV. [~~Pentane-2 α -carboxy, 5-carboxamido-1-sulfate~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfate,
- XVI. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid,
- XVII. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfate,
- XVIII. [~~D-homoglutamine, N-sulfonic acid~~], D-homoglutamine, N-sulfonic acid,
- XIX. [~~Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid,
- XX. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid,
- XXI. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfate,
- XXII. [~~D-homoglutamine, 3 α -sulfonic acid~~], D-homoglutamine, 3 α -sulfonic acid,
- XXIII. [~~D-homoglutamine, 3 α -sulfate~~], D-homoglutamine, 3 α -sulfate,
- XXIV. [~~D-homoglutamine, 3 β -sulfonic acid~~], D-homoglutamine, 3 β -sulfonic acid,

- XXV. ~~{D-homoglutamine, 3 β -sulfate}~~, D-homoglutamine, 3 β -sulfate,
XXVI. ~~{D-homoglutamine, 4 α -sulfonic acid}~~, D-homoglutamine, 4 α -sulfonic acid,
XXVII. ~~{D-homoglutamine, 4 α -sulfate}~~, D-homoglutamine, 4 α -sulfate,
XXVIII. ~~{D-homoglutamine, 4 β -sulfonic acid}~~, D-homoglutamine, 4 β -sulfonic acid,
XXIX. ~~{D-homoglutamine, 4 β -sulfate}~~, D-homoglutamine, 4 β -sulfate,
XXX. ~~{D-homoglutamine, 5 α -sulfonic acid}~~, D-homoglutamine, 5 α -sulfonic acid,
XXXI. ~~{D-homoglutamine, 5 α -sulfate}~~, D-homoglutamine, 5 α -sulfate,
XXXII. ~~{D-homoglutamine, 5 β -sulfonic acid}~~, and D-homoglutamine, 5 β -sulfonic acid, and
XXXIII. ~~{D-homoglutamine, 5 β -sulfate}~~, D-homoglutamine, 5 β -sulfate.

47. (Currently Amended) A composition as claimed in claim 44, wherein said compound is selected from the group consisting of:

- I. ~~{L-Aspartic acid, N-Sulfonic acid}~~,
II. ~~{2 α ,3-dicarboxy, propane-1-sulfonic acid}~~, 2 α ,3-dicarboxy, propane-1-sulfonic acid,
III. ~~{2 α ,3-dicarboxy, propane-1-sulfate}~~, 2 α ,3-dicarboxy, propane-1-sulfate,
IV. ~~{1 α ,2-carboxy ethane sulfonic acid}~~, 1 α ,2-carboxy ethane sulfonic acid,
V. ~~{1 α ,2-carboxy ethane sulfate}~~, 1 α ,2-carboxy ethane sulfate,
VI. ~~{D-aspartic acid, N-sulfonic acid}~~,
VII. ~~{2 β ,3-carboxy,propane-1-sulfonic acid}~~, 2 β ,3-carboxy,propane-1-sulfonic acid,
VIII. ~~{2 β ,3-carboxy,propane-1-sulfate}~~, 2 β ,3-carboxy,propane-1-sulfate,
IX. ~~{1 β ,2-carboxy ethane-1-sulfonic acid}~~, 1 β ,2-carboxy ethane-1-sulfonic acid,
X. ~~{1 β ,2-carboxy ethane-1-sulfate}~~, 1 β ,2-carboxy ethane-1-sulfate,
XI. ~~{D-aspartic acid, 3 α -sulfonic acid}~~,
XII. ~~{D-aspartic acid, 3 α -sulfate}~~,
XIII. ~~{D-aspartic acid, 3 β -sulfonic acid}~~,
XIV. ~~{D-aspartic acid, 3 β -sulfate}~~,
XV. ~~{L-asparagine, N-sulfonic acid}~~, L-asparagine, N-sulfonic acid,

- XVI. ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~, 2 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XVII. ~~{2 α -carboxy, 3-carboxamido, propane-1-sulfate}~~, 2 α -carboxy, 3-carboxamido, propane-1-sulfate,
- XVIII. ~~{1 α -carboxy, 2-carboxamido, ethane-sulfonic acid}~~, 1 α -carboxy, 2-carboxamido, ethane-sulfonic acid,
- XIX. ~~{1 α -carboxy, 2-carboxamido, ethane-sulfate}~~, 1 α -carboxy, 2-carboxamido, ethane-sulfate,
- XX. ~~{L-asparagine, 3 α -sulfonic acid}~~, L-asparagine, 3 α -sulfonic acid,
- XXI. ~~{L-asparagine, 3 α -sulfate}~~, L-asparagine, 3 α -sulfate,
- XXII. ~~{L-asparagine, 3 β -sulfonic acid}~~, L-asparagine, 3 β -sulfonic acid,
- XXIII. ~~{L-asparagine, 3 β -sulfate}~~, L-asparagine, 3 β -sulfate,
- XXIV. ~~{D-asparagine, N-sulfonic acid}~~, D-asparagine, N-sulfonic acid,
- XXV. ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~, 2 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XXVI. ~~{2 β -carboxy, 3-carboxamido, propane-1-sulfate}~~, 2 β -carboxy, 3-carboxamido, propane-1-sulfate,
- XXVII. ~~{1 β -carboxy, 2-carboxamido, ethane-sulfonic acid}~~, 1 β -carboxy, 2-carboxamido, ethane-sulfonic acid,
- XXVIII. ~~{1 β -carboxy, 2-carboxamido, ethane-sulfate}~~, 1 β -carboxy, 2-carboxamido, ethane-sulfate,
- XXIX. ~~{D-asparagine, 3 α -sulfonic acid}~~, D-asparagine, 3 α -sulfonic acid,
- XXX. ~~{D-asparagine, 3 α -sulfate}~~, D-asparagine, 3 α -sulfate,
- XXXI. ~~{D-asparagine, 3 β -sulfonic acid}~~, and D-asparagine, 3 β -sulfonic acid, and
- XXXII. ~~{D-asparagine, 3 β -sulfate}~~, D-asparagine, 3 β -sulfate.

48. (Currently Amended) A composition as claimed in claim 45, wherein said compound is selected from the group consisting of:

- I. ~~{L-glutamic acid, N-sulfonic acid}~~, L-glutamic acid, N-sulfonic acid,

- II. ~~{2 α ,4-dicarboxy, butane-1-sulfonic acid}~~, 2 α ,4-dicarboxy, butane-1-sulfonic acid,
- III. ~~{2 α ,4-dicarboxy, butane-1-sulfate}~~, 2 α ,4-dicarboxy, butane-1-sulfate,
- IV. ~~{1 α ,3-dicarboxy, propane-sulfonic acid}~~, 1 α ,3-dicarboxy, propane sulfonic acid,
- V. ~~{1 α ,3-dicarboxy, propane-sulfate}~~, 1 α ,3-dicarboxy, propane sulfate,
- VI. ~~{1 β ,3-dicarboxy, propane-sulfate}~~, 1 β ,3-dicarboxy, propane sulfate,
- VII. ~~{1 β ,3-dicarboxy, propane-sulfonic acid}~~, 1 β ,3-dicarboxy, propane sulfonic acid,
- VIII. ~~{D-glutamic acid, N-sulfonic acid}~~, D-glutamic acid, N-sulfonic acid,
- IX. ~~{2 β ,4-dicarboxy, butane-1-sulfonic acid}~~, 2 β ,4-dicarboxy, butane-1-sulfonic acid,
- X. ~~{2 β ,4-dicarboxy, butane-1-sulfate}~~, 2 β ,4-dicarboxy, butane-1-sulfate,
- XI. ~~{D-glutamic acid, 3 α -sulfonic acid}~~, D-glutamic acid, 3 α -sulfonic acid,
- XII. ~~{D-glutamic acid, 3 α -sulfate}~~, D-glutamic acid, 3 α -sulfate,
- XIII. ~~{D-glutamic acid, 3 β -sulfonic acid}~~, D-glutamic acid, 3 β -sulfonic acid,
- XIV. ~~{D-glutamic acid, 3 β -sulfate}~~, D-glutamic acid, 3 β -sulfate,
- XV. ~~{D-glutamic acid, 4 α -sulfonic acid}~~, D-glutamic acid, 4 α -sulfonic acid,
- XVI. ~~{D-glutamic acid, 4 α -sulfate}~~, D-glutamic acid, 4 α -sulfate,
- XVII. ~~{D-glutamic acid, 4 β -sulfonic acid}~~, D-glutamic acid, 4 β -sulfonic acid,
- XVIII. ~~{D-glutamic acid, 3 β -sulfate}~~, D-glutamic acid, 3 β -sulfate,
- XIX. ~~{L-glutamine, N-sulfonic acid}~~, L-glutamine, N-sulfonic acid,
- XX. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid}~~, 2 α -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XXI. ~~{2 α -carboxy, 4-carboxamido, butane-1-sulfate}~~, 2 α -carboxy, 4-carboxamido, butane-1-sulfate,
- XXII. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid}~~, 1 α -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XXIII. ~~{1 α -carboxy, 3-carboxamido, propane-1-sulfate}~~, 1 α -carboxy, 3-carboxamido, propane-1-sulfate,

- XXIV. [~~1 β -carboxy, 3-carboxamido, propane-1-sulfate~~], 1 β -carboxy, 3-carboxamido, propane-1-sulfate,
- XXV. [~~1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid~~], 1 β -carboxy, 3-carboxamido, propane-1-sulfonic acid,
- XXVI. [~~D-glutamine, N-sulfonic acid~~], D-glutamine, N-sulfonic acid,
- XXVII. [~~2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid~~], 2 β -carboxy, 4-carboxamido, butane-1-sulfonic acid,
- XXVIII. [~~2 β -carboxy, 4-carboxamido, butane-1-sulfate~~], 2 β -carboxy, 4-carboxamido, butane-1-sulfate,
- XXIX. [~~D-glutamine, 3 α -sulfonic acid~~], D-glutamine, 3 α -sulfonic acid,
- XXX. [~~D-glutamine, 3 α -sulfate~~], D-glutamine, 3 α -sulfate,
- XXXI. [~~D-glutamine, 3 β -sulfonic acid~~], D-glutamine, 3 β -sulfonic acid,
- XXXII. [~~D-glutamine, 3 β -sulfate~~], D-glutamine, 3 β -sulfate,
- XXXIII. [~~D-glutamine, 4 α -sulfonic acid~~], D-glutamine, 4 α -sulfonic acid,
- XXXIV. [~~D-glutamine, 4 α -sulfate~~], D-glutamine, 4 α -sulfate,
- XXXV. [~~D-glutamine, 4 β -sulfonic acid~~], D-glutamine, 4 β -sulfonic acid,
- XXXVI. [~~D-glutamine, 4 β -sulfate~~], D-glutamine, 4 β -sulfate,
- XXXVII. [~~L-homoglutamic acid, N-sulfonic acid~~], L-homoglutamic acid, N-sulfonic acid,
- XXXVIII. [~~Pentane-2 α , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 α , 5-dicarboxy-1-sulfonic acid,
- XXXIX. [~~Pentane-2 α , 5-dicarboxy-1-sulfate~~], Pentane-2 α , 5-dicarboxy-1-sulfate,
- XL. [~~Butane-1 α , 4-dicarboxy-1-sulfonic acid~~], and Butane-1 α , 4-dicarboxy-1-sulfonic acid, and
- XLI. [~~Butane-1 α , 4-dicarboxy-1-sulfate~~], Butane-1 α , 4-dicarboxy-1-sulfate.

49. (Currently Amended) A composition as claimed in claim 46, wherein said compound is selected from the group consisting of:

- I. [~~D-homoglutamic acid, N-sulfonic acid~~], D-homoglutamic acid, N-sulfonic acid,

- II. [~~Pentane 2 β , 5-dicarboxy-1-sulfonic acid~~], Pentane-2 β , 5-dicarboxy-1-sulfonic acid,
- III. [~~Pentane 2 β , 5-dicarboxy-1-sulfate~~], Pentane-2 β , 5-dicarboxy-1-sulfate,
- IV. [~~Butane 1 β , 4-dicarboxy-1-sulfonic acid~~], Butane-1 β , 4-dicarboxy-1-sulfonic acid,
- V. [~~Butane 1 β , 4-dicarboxy-1-sulfate~~], Butane-1 β , 4-dicarboxy-1-sulfate,
- VI. [~~D-homoglutamic acid, 3 α -sulfonic acid~~], D-homoglutamic acid, 3 α -sulfonic acid,
- VII. [~~D-homoglutamic acid, 3 α -sulfate~~], D-homoglutamic acid, 3 α -sulfate,
- VIII. [~~D-homoglutamic acid, 3 β -sulfonic acid~~], D-homoglutamic acid, 3 β -sulfonic acid,
- IX. [~~D-homoglutamic acid, 3 β -sulfate~~], D-homoglutamic acid, 3 β -sulfate,
- X. [~~D-homoglutamic acid, 4 α -sulfonic acid~~], D-homoglutamic acid, 4 α -sulfonic acid,
- XI. [~~D-homoglutamic acid, 4 α -sulfate~~], D-homoglutamic acid, 4 α -sulfate,
- XII. [~~D-homoglutamic acid, 4 β -sulfonic acid~~], D-homoglutamic acid, 4 β -sulfonic acid,
- XIII. [~~D-homoglutamic acid, 4 β -sulfate~~], D-homoglutamic acid, 4 β -sulfate,
- XIV. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- XV. [~~D-homoglutamic acid, 5 α -sulfate~~], D-homoglutamic acid, 5 α -sulfate,
- XVI. [~~D-homoglutamic acid, 5 β -sulfonic acid~~], D-homoglutamic acid, 5 β -sulfonic acid,
- XVII. [~~D-homoglutamic acid, 5 β -sulfate~~], D-homoglutamic acid, 5 β -sulfate,
- XVIII. [~~L-homoglutamine, N-sulfonic acid~~], L-homoglutamine, N-sulfonic acid,
- XIX. [~~Pentane 2 α -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfonic acid,
- XX. [~~Pentane 2 α -carboxy, 5-carboxamido-1-sulfate~~], Pentane-2 α -carboxy, 5-carboxamido-1-sulfate,
- XXI. [~~Butane 1 α -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfonic acid,

- XXII. [~~Butane-1 α -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 α -carboxy, 4-carboxamido-1-sulfate,
- XXIII. [~~D-homoglutamine, N-sulfonic acid~~], D-homoglutamine, N-sulfonic acid,
- XXIV. [~~Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid~~], Pentane-2 β -carboxy, 5-carboxamido-1-sulfonic acid,
- XXV. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfonic acid,
- XXVI. [~~Butane-1 β -carboxy, 4-carboxamido-1-sulfate~~], Butane-1 β -carboxy, 4-carboxamido-1-sulfate,
- XXVII. [~~D-homoglutamine, 3 α -sulfonic acid~~], D-homoglutamine, 3 α -sulfonic acid,
- XXVIII. [~~D-homoglutamine, 3 α -sulfate~~], D-homoglutamine, 3 α -sulfate,
- XXIX. [~~D-homoglutamine, 3 β -sulfonic acid~~], D-homoglutamine, 3 β -sulfonic acid,
- XXX. [~~D-homoglutamine, 3 β -sulfate~~], D-homoglutamine, 3 β -sulfate,
- XXXI. [~~D-homoglutamine, 4 α -sulfonic acid~~], D-homoglutamine, 4 α -sulfonic acid,
- XXXII. [~~D-homoglutamine, 4 α -sulfate~~], D-homoglutamine, 4 α -sulfate,
- XXXIII. [~~D-homoglutamine, 4 β -sulfonic acid~~], D-homoglutamine, 4 β -sulfonic acid,
- XXXIV. [~~D-homoglutamine, 4 β -sulfate~~], D-homoglutamine, 4 β -sulfate,
- XXXV. [~~D-homoglutamine, 5 α -sulfonic acid~~], D-homoglutamine, 5 α -sulfonic acid,
- XXXVI. [~~D-homoglutamine, 5 α -sulfate~~], D-homoglutamine, 5 α -sulfate,
- XXXVII. [~~D-homoglutamine, 5 β -sulfonic acid~~], and D-homoglutamine, 5 β -sulfonic acid, and
- XXXVIII. [~~D-homoglutamine, 5 β -sulfate~~], D-homoglutamine, 5 β -sulfate.